# CS:2620 Networking and Security for Informatics

**Credits and contact hours:** 3 hours
2 75-minute lectures per week

**Instructor:**
Zubair Shafiq
201J MacLean Hall

**Textbook:**

Computer Networking: A Top-Down Approach, 7th Edition
Author: Kurose and Ross
Publisher: Pearson

**Evaluation:**

10-13 weekly quizzes
2 programming projects
1 midterm exam
1 final exam

**Course Description:**

Introduction to computer networking and an overview of network organization and management. Students will also develop a basic understanding of encryption and network security, as well as some practical experience in network programming.

**Prerequisites:**

CS:2110 with a minimum grade of C-

**Brief list of topics covered:**

- Week 1: Background and basics
- Week 2: Introduction to the Internet
- Week 3: Application Layer
- Week 4: Application Layer
- Week 5: Transport Layer
- Week 6: Transport Layer
- Week 7: Network Layer
- Week 8: Network Layer
- Week 9: Link Layer
- Week 10: Link Layer
- Week 11: Security
- Week 12: Security
- Week 13: Security
- Week 14: Privacy

- Week 15: Privacy

**Disclaimer:** All information is tentative and subject to change

**Time and location:**
11:00 AM - 12:15 PM TTh 110 MLH

**Office hours:**
1:00 PM - 2:30 PM TTh 201J MLH and by appointment.

**Detailed format:**

*Quizzes*: There will be 10 quizzes (approximately 1 every Tuesday at the start of the lecture).

*Programming Assignments*: There will be 2 programming assignments. These assignments will require you to program in Python. Each assignment will last about 2 weeks. These are individual assignments (i.e., no collaboration is allowed).

*Midterm Exam*: The midterm exam will be conducted before the spring break.

*Final Exam*: The final exam will be conducted during the finals week.

**Grading breakdown:**

The course uses the +/- grading system.

- Quizzes: 40%
- Programming assignments: 20% (2 assignments, 10% each)
- Midterm Exam: 20%
- Final Exam: 20%

**Course policies:**

- Attendance: Attendance is not required. But you will lose credits for missed quizzes. No makeups.
- Late Submission Policy: There are no late submissions unless you demonstrate in advance (and I agree) that a significant life-event prevents you from an on-time submission or if you have a documented emergency.
- Laptop/Cell phone: You are not allowed to use laptop/cell phones during the lectures. Please bring pen and paper to take notes.

**Administrative Home**

The College of Liberal Arts and Sciences is the administrative home of this course and governs matters such as the add/drop deadlines, the second-grade-only option, and other related issues. Different colleges may have different policies. Questions may be addressed to 120 Schaeffer Hall, or see the CLAS Academic Policies Handbook at https://clas.uiowa.edu/students/handbook.

**Electronic Communication**

University policy specifies that students are responsible for all official correspondences sent to their University of Iowa e-mail address (@uiowa.edu). Faculty and students should use this account for correspondences (Operations Manual, III.15.2).

**Accommodations for Disabilities**

The University of Iowa is committed to providing an educational experience that is accessible to all students. A student may request academic accommodations for a disability (which includes but is not limited to mental health, attention, learning, vision, and physical or health-related conditions). A student seeking academic accommodations should first register with Student Disability Services and then meet with the course instructor privately in the instructor's office to make particular arrangements. Reasonable accommodations are established through an interactive process between the student, instructor, and SDS. See https://sds.studentlife.uiowa.edu/ for information.

**Nondiscrimination in the Classroom**

The University of Iowa is committed to making the classroom a respectful and inclusive space for all people irrespective of their gender, sexual, racial, religious or other identities. Toward this goal, students are invited to optionally share their preferred names and pronouns with their instructors and classmates. The University of Iowa prohibits discrimination and harassment against individuals on the basis of race, class, gender, sexual orientation, national origin, and other identity categories set forth in the University's Human Rights policy. For more information, contact the Office of Equal Opportunity and Diversity, diversity@uiowa.edu, or visit diversity.uiowa.edu.

**Academic Honesty**

All CLAS students or students taking classes offered by CLAS have, in essence, agreed to the College's Code of Academic Honesty: "I pledge to do my own academic work and to excel to the best of my abilities, upholding the IOWA Challenge. I promise not to lie about my academic work, to cheat, or to steal the words or ideas of others; nor will I help fellow students to violate the Code of Academic Honesty." Any student committing academic misconduct is reported to the College and placed on disciplinary probation or may be suspended or expelled (CLAS Academic Policies Handbook).

**CLAS Final Examination Policies**

The final examination schedule for each class is announced by the Registrar generally by the fifth week of classes. Final exams are offered only during the official final examination period. No exams of any kind are allowed during the last week of classes. All students should plan on being at the UI through the final examination period. Once the Registrar has announced the date, time, and location of each final exam, the complete schedule will be published on the Registrar's web site and will be shared with instructors and students. It is the student's responsibility to know the date, time, and place of a final exam.

**Making a Suggestion or a Complaint**

Students with a suggestion or complaint should first visit with the instructor (and the course supervisor), and then with the departmental DEO. Complaints must be made within six months of the incident (CLAS Academic Policies Handbook).

**Understanding Sexual Harassment**

Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. All members of the UI community have a responsibility to uphold this mission and to contribute to a safe environment that enhances learning. Incidents of sexual harassment should be reported immediately. See the UI Office of the Sexual Misconduct Response Coordinator for assistance, definitions, and the full University policy.

**Reacting Safely to Severe Weather**

In severe weather, class members should seek appropriate shelter immediately, leaving the classroom if necessary. The class will continue if possible when the event is over. For more information on Hawk Alert and the siren warning system, visit the Department of Public Safety website.